UTILITY ACCOMMODATION POLICY

IDAHO TRANSPORTATION DEPARTMENT

Edition

July 2003

TABLE OF CONTENTS

SECTION 1 GENERAL INFORMATION

- 1.1 PURPOSE AND APPLICATION
- 1.2 **AUTHORITY**
- 1.3 **DEFINITION OF TERMS**

SECTION 2 RIGHT-OF-WAY & PERMIT

- 2.1 USE
- 2.2 PRE-EXISTING
- 2.3 PERMITTED
- 2.4 ADMINISTRTIVE APPEAL
- 2.5 REQUIREMENTS OF PERMITTEE
- 2.6 EMERGENCY REPAIR AND MAINTENANCE
- 2.7 PERMIT FREE

2.8 INSPECTION

2.9 PERFORMANCE BOND

SECTION 3 INDEMNIFICATION

- 3.1 MAINTENANCE BY UTILITIES
- 3.2 NOTICE OF DAMAGE
- 3.3 UTILITY INDEMNIFICATION

SECTION 4 DESIGN

- **4.1 RESPONSIBILITY**
- 4.2 RELOCATING COST
- 4.3 MINIMUM REQUIREMENTS

SECTION 5 LOCATION

- 5.1 **GENERAL**
- 5.2 EXISTING FACILITIES
- 5.3 UNDERGROUND FACILITIES
- 5.4 ABOVE GROUND FACILITIES
- 5.5 **LONGITUDINAL**
- 5.6 CROSSING
- 5.7 WITHIN TYPE 5 ACCESS CONTROL (INTERSTATE)
- 5.8 INSTALLATIONS ON HIGHWAY STRUCTURES
- 5.9 **AESTHETIC CONTROLS**

SECTION 6 CONSTRUCTION

- 6.1 **GENERAL**
- 6.2 PROTECTION OF PUBLIC
- 6.3 TRENCHING
- 6.4 JACKING, DRIVING, OR BORING
- 6.5 DIRECT BURIAL
- 6.6 **ENCASEMENT**
- 6.7 APPURTENANCES

CHAPTER 7 REFERENCES

SECTION 1 GENERAL INFORMATION

1.1 PURPOSE AND APPLICATION

This document supersedes "A Policy for the Accommodation of Utilities within the Right-of-way of the State Highway System in the State of Idaho 1990 Edition" and all prior editions. These provisions concern the location and manner in which utility installations are to be made within the rights-of-way of the state highway system of Idaho and highway projects for local roads using Federal-aid.

The policy of the Idaho Transportation Department (ITD) is to adhere with Idaho code and accommodate utility facilities installations on federal aid and non-federal aid state highway rights-of-way, to the extent that such facilities may be accommodated without compromising the safety or integrity of the highway and without interference to the normal operation and maintenance activities as required.

This policy applies to maintenance of existing utilities, new utility installations, existing utility installations to be retained or adjusted as a result of highway construction or reconstruction, and the relocation of utility facilities that are found to constitute a hazard to the traveling public on all rights-of-way under the jurisdiction of the ITD. The standards set forth in this policy will also apply where encroachment by private utility facilities is permitted.

ITD will enter into agreements with local highway authorities to regulate the use and occupancy of the right-of-way of local federal-aid highways by utility facilities in accordance with the Federal Highway Administration's regulations found in Title 23, *Code of Federal Regulations*, Part 645, Subpart B, Accommodation of Utilities and any amendments or supplements which are in effect prior to execution of the agreement.

Exceptions to any provisions contained in this policy may be authorized by ITD or the Idaho Transportation Board in any instance where there is evidence showing that unusual hardship and/or unusual conditions provide justification and where alternate measures can be prescribed in keeping with the intent of the policy. All requests for such exceptions shall be documented with design data, cost comparison, and other information that may be pertinent.

ITD's Guide for Utility Management Current Edition (GUM) in accordance with this policy outlines the procedures established by ITD regarding coordination and administration of utility facility installations, relocations and adjustments within the right-of-way of the State Highway System and for utility facility relocations on local highway improvement projects using Federal-Aid funds. The GUM is available for public inspection and copying at the Office of the Utilities/Railroad Engineer at the Idaho Transportation Department central office, 3311 West State, Boise, Idaho 83707 or the Idaho Transportation Department WEB site http://www2.state.id.us/itd/index.htm.

1.2 AUTHORITY

The provisions of this manual are authorized by the following sections of the Idaho Administrative Procedures Act:

- Administrative Rule (IDAPA) 39.03.43 "Rules Governing Utilities on State Highway Right-of-Way."; references this manual as policy for utilities occupying the highway right-of-way of the State Highway System.
- Administrative Rule (IDAPA) 39.03.42 states the regulations for using and occupying the highway right-of-way of the State Highway System.

These Administrative Rules are available electronically at the following web site http://www2.state.id.us/adm/adminrules/rules/idapa39/39index.htm.

The authority of utilities to use and occupy the right-of-way of highways is cited as follows:

- *Idaho Code* §§ 62-701, 62-705, and 62-1101 provides that telephone and telegraph companies, electric power companies, oil and gas pipeline companies, etc., may use the public right-of-way for their transmission lines.
- *Idaho Code § 42-3212(k)* permits sewer and water districts to construct and maintain facilities across or along any public street or highway and to use the public right-of-way for their transmission lines.
- Idaho Code § 40-2308 provides for use of public highways and city streets by gas and water.

The state's authority to regulate the use of the right-of-way of state highways is cited as follows:

- *Idaho Code § 40-312(1)* authorizes the Idaho Transportation Board to prescribe rules and regulations affecting state highways and to enforce compliance with such rules and regulations.
- *Idaho Code § 40-312(3)* provides additional rule-making powers by the Idaho Transportation Board for the regulation of public right-of-way usage by utilities.

1.3 **DEFINITION OF TERMS**

ACCESS	The ability to enter or leave a public highway or highway right-of-
	way from an abutting private property or other public highway.
BACKFILL	Approved material used to replace excavated material.
BEDDING	Soil or other suitable material to support a pipe, conduit, casing, or
	gallery.
BORING	Rotary drilling into the earth to insert a conduit or casing in the bore.
CARRIER	Pipe directly enclosing a transmitted fluid (liquid or gas).
CASING	A larger pipe generally under the roadway, through pier(s), or
	abutment(s) of highway structures that enclose one or more utility
	conduits or carriers.
CLEAR ZONE	An area outside the traveled way, auxiliary lanes and shoulders that
	is constructed and maintained as free from physical obstruction as
	practical, for use as a recovery area by errant vehicles.
COATING	Material applied to or wrapped around a pipe.
CONDUIT or DUCT	An enclosed casing for protecting wires or cables.
DEPTH OF COVER	Depth of material from top of underground utility facility to the
	finish grade of a roadway or the natural ground or the bottom of a
	stream channel.
DISTRICT	An administrative and maintenance subdivision of the Idaho
	Transportation Department encompassing a particular geographical
	region of the State of Idaho.
DRIVING	A mechanical means to forcibly install a casing without the means of
	drilling or boring.
EASEMENT	An interest in real property that conveys use, but not ownership, of a
	portion of an owner's property.
ENCASEMENT	A larger structural element around an underground utility facility.
	Includes casing or utility tunnel.
ENCROACHMENT	Any authorized or unauthorized use of highway right-of-way or the
	air space above the highway right-of-way.

FORESLOPE	The area from the edge of pavement to ditch line.
FRONTAGE ROAD	A road auxiliary to and located to the side of the highway for service
	to the abutting properties and adjacent areas, for the purpose of
	controlling access to the highway.
GRADE SEPARATION	A structure separating the elevations of two or more intersecting
	roads above or below a highway.
HIGHWAY(S)	The entire width between the boundary lines of every main traveled
, ,	way publicly maintained when any part is open to use by the public
	for vehicular travel, with jurisdiction extending to the adjacent
	property line, including sidewalks, shoulders, berms, and rights-of-
	way not intended for motorized traffic. The term "street" is
	interchangeable with highway. Also, roads, streets, alleys, and
	bridges laid out or established for the public or dedicated or
	abandoned to the public. Highways shall include necessary culverts,
	sluices, drains, ditches, waterways, embankments, retaining walls,
	bridges, tunnels, grade separation structures, roadside
	improvements, adjacent lands, or interests lawfully acquired,
	pedestrian facilities, and any other structures, works, or fixtures
	incidental to the preservation or improvement of the highways.
	Roads laid out and recorded as highways, by order of a board of
	commissioners, and all roads used as such for a period of five (5)
	years, provided they shall have been worked and kept up at the
	expense of the public, or located and recorded by order of a board of
	commissioners, are highways.
HIGHWAY RIGHT-OF-	Property rights to land generally designated for transportation
WAY	purposes, open to the public, and under the jurisdiction of a Public
	Highway Agency.
IDAHO	Is vested with authority, control, supervision and administration of
TRANSPORTATION	the Idaho Transportation Department established by Title 40, Chapter
BOARD	3, of the Idaho Code.
INTERSECTION	The general area where two or more highways join or cross at-grade.
INTERSTATE HIGHWAY	As identified by U.S. Code, a part of the National System of
	Interstate and Defense Highway System with a fully controlled
	access and having medians, grade separations at cross roads, and
	ramp connections for entrance to and exit from the traveled way.
JACKING	A method to place underground pipe without trenching by cutting an
	opening ahead of the pipe and forcing the pipe into the opening by
	means of horizontal jacks.
MAINTENANCE	The continuous work or in kind replacement that is required to keep
	any encroachment within the highway right-of-way from
	deterioration due to wear and tear, and to preserve the general
	character of the original improvement without alteration of any of its
	component factors.
MEDIAN	The portion of a divided highway or approach that separates
	opposing traveled ways. Medians may be raised, flush, or depressed
	relative to the roadway surface, and may be landscaped or paved.
PERFORMANCE BOND	A statutory bond, issued by a surety company authorized to do
	business in the state of Idaho, that guarantees performance of work
	in accordance with permit requirements.
REST AREA	A roadside area with parking and other facilities, separated from the

	roadway, provided for motorists to stop and rest.
RIGHTS-OF-WAY	A general term denoting land, property, or interest therein and under
	the jurisdiction of specified entity.
ROADSIDE	A general term denoting the area adjoining the outer edge of the
	roadway with-in the right-of-way.
ROADWAY	The portion of a highway, including shoulders, for vehicular use.
SHOULDER	The paved or unpaved portion of the roadway contiguous with the
	traveled way for accommodation of stopped vehicles, for emergency
	use, and for lateral support of base and surface courses.
STATE HIGHWAY	The principal highway arteries in the state, including connecting
SYSTEM	arteries and extensions through cities, and includes roads to every
	county seat in the state.
SUBBASE	A layer or layers of specified or selected material of designed
	thickness placed on a subgrade to support a base course.
SUBGRADE	The surface of the roadbed or that surface noted as "Subgrade" on
	the highway plans.
TRAVELED WAY	The portion of the roadway for the movement of vehicles exclusive
	of shoulders and auxiliary lanes.
TYPE V (Interstate)	Type V access control is applicable to State highways accessible
	only by interchanges (ramps). These highways typically include the
	interstate system and require FHWA approval for any change in
LICELLICES	access.
UTILITY	An entity comprised of any person, private company, public agency or cooperative owning and/or operating utility facilities.
UTILITY FACILITY	All privately, publicly or cooperatively owned lines, facilities, and
	systems for producing, transmitting or distributing communications,
	cable television, electricity, light, heat, gas, oil, crude products, ore,
	water, steam, waste or storm water not connected with highway
	drainage, and other similar commodities.
UTILITY TUNNEL	An underground structure capable of containing several pipes, cables and conduits for utility facilities.
VIEW AREA	A roadside area provided for motorists to pull off the traveled way
	and view the scenery in safety.
	and view the scenery in safety.

SECTION 2 RIGHT-OF-WAY & PERMIT

2.1 USE

ITD acquires rights-of-way which are adequate not only for the construction of the highway facility, but also for its safe operation and maintenance. ITD recognizes Idaho law which acknowledges the benefits to the public interest for utilities to jointly use highway right-of-way when it does not impair or interfere with the free and safe flow of traffic and highway maintenance. The opportunity for joint use avoids the additional cost of acquiring separate rights-of-way for the exclusive accommodation of utilities.

2.2 PRE-EXISTING

ITD recognizes that pre-existing property interests within public rights-of-way exist. Proof of a pre-existing property interest within a highway right-of-way shall be accepted in the form of a duly executed deed, grant or other document establishing the same, or at least two affidavits sufficient to establish prior right or title of the utility.

In the absence of such proof, it shall be assumed that the utility occupies the highway right-ofway as a permittee (i.e. by permission), and enjoys no vested interest.

2.3 PERMITTED

An ITD Utility Encroachment Permit (form # ITD-2110 see GUM) is the document which specifies the requirements and conditions under which installing and maintaining utility facilities on the highway right-of-way shall be performed.

Each new utility facility installation that is to occupy state highway right-of-way shall require the owner of the facility to secure an ITD Utility Encroachment Permit. Any addition to or change in operating conditions of existing facilities other than for routine maintenance and emergency repairs shall require issuance of a new Utility Encroachment Permit prior to the initiation of such work or change.

Existing utility facilities that are to be relocated or adjusted to a position within the highway right-of-way due to a construction project shall be issued a Board Order to relocate and a no cost Utility Encroachment Permit by ITD. Before issuance of the Board Order the Utility shall be afforded the opportunity of a Hearing before the Idaho Transportation Board.

Utility facilities not adjusted and already covered by a permit will not require a new permit.

No permitted interest or rights-of-way shall be transferred to another utility or person except by written consent of ITD.

Utility facilities wishing to locate on or across highways for which all deeded rights have not been obtained (such as through National Forest System Lands, U.S. Bureau of Land Management land, Railroad property, etc.) shall acquire approval to use the rights-of-way for non-highway purposes from the appropriate entity having administration of the property.

Because it is impossible to anticipate all future highway needs or proposals, the ITD reserves the right to deny any request for a permit.

The ITD <u>GUM</u> outlines the process to be followed for requesting, approving and implementing Utility Encroachment Permits on the highway right-of-way and the Hearing process and issuance of a Board Order.

2.4 ADMINISTRATIVE APPEAL

If the applicant for a Utility Encroachment Permit is denied a permit by the District the applicant may appeal as follows:

- 1. The applicant sends a written appeal to the ITD Utility/Railroad Engineer (Idaho Transportation Department, P.O. Box 7129, Boise, Idaho 83707-1129) within thirty (30) days from notification of the permit being denied. The appeal process commences on the date the written appeal is received.
- 2. The Utility/Railroad Engineer will have fourteen (14) working days to review and prepare the appeal for review by the ITD Chief Engineer.
- 3. The ITD Chief Engineer shall have twenty one (21) working days to review and notify by certified mail the appellant of his decision.
- 4. If further arbitration is required the appellant has thirty (30) days following denial notification by the Chief Engineer to contact ITD legal section and the appeal process will be initiated in accordance with the IDAPA 04.11.01, "Idaho Rules of Administrative Procedure of the Attorney General".

If at anytime during the appeal process it is determined that insufficient documentation was submitted with the appeal, all parties shall be notified that the appeal process is on hold until the necessary documentation is provided.

2.5 REQUIREMENTS OF PERMITTEE

The utility shall waive reimbursement for any future relocation expenses as a condition of obtaining a permit to install new or upgrade existing facilities within the highway right-of-way. The permittee shall conduct their operation so as to cause a minimum of interference to the highway users and the operation and maintenance of the highway. The utility shall provide a traffic control plan in conformance with the latest edition adopted by Idaho of the Federal Highway Administration's "Manual on Uniform Traffic Control Devices" adopted by ITD (MUTCD) and all other ITD standards concerning the construction operations of the utility facility. Traffic control plans showing detours and signing operations for all lanes must have ITD approval prior to any work beginning. No lane closure shall be made without prior ITD approval. Peak hour lane closures may be prohibited.

Any noncompliance of the permit requirements will result in termination of the utility company's permit and the utility facilities covered by the permit must be removed.

If the utility fails to construct, repair or remove said utility in accordance with the terms of the permit to the satisfaction of ITD or fails to pay ITD any sum of money for the inspection, reconstruction, repair or maintenance of said utility, ITD retains the right to cancel the permit and remove said utility and restore the highway at the sole expense of the utility. Before canceling the permit, ITD shall notify the utility in writing, setting forth the violations and shall give the utility a reasonable time to fully correct the same.

Any utility work done through a contract issued by the permittee shall be subject to the same requirements of the permit.

2.6 EMERGENCY REPAIR AND MAINTENANCE

An emergency repair or adjustment of utility facilities may be made without prior permit if there is an extreme emergency. An extreme emergency would exist if the utility facility was damage such that it presented imminent danger, or loss of life, or severe damage to property, or loss of vital utility services.

The utility company shall notify ITD as soon as possible in advance of any maintenance or emergency repair work to utility facilities within highway right-of-way. Notification shall be given to the appropriate ITD District office or state communications per the GUM.

In such emergency situations, the utility shall contact ITD per the <u>GUM</u>. None of the provisions of this policy are waived for emergency situations except for the requirement to secure a permit prior to work. In all cases the permittee shall comply with the State Law requiring notification of all utility owners prior to any excavation. Highway right-of-way access will only be granted for the actual time when repairs are being made and the extreme emergency exists. Every precaution shall be taken during such periods to safeguard the highway user.

Violation of the above-listed regulations governing emergency access to the highway right-ofway shall result in immediate cancellation of the Utility Encroachment Permit for that facility.

2.7 PERMIT FEE

Utility Encroachment Permit shall not be processed until all applicable permit fees are received. Fees for permits are not refundable. Utility Encroachment Permit fees shall be as follows:

- Non-Interstate: new, modify or relocated, fifty dollars (\$50).
- Interstate: new, modify or relocated, fees will be addressed at the time of application.
- Interstate & Non-Interstate: maintenance or emergency repair without change in location, No Charge.
- Interstate & Non-Interstate: ITD highway project requires modify or relocation, No Charge.

2.8 INSPECTION

To ensure compliance with the terms and conditions of Utility Encroachment Permit, ITD reserves the right to inspect the work of the utility or their contractor during such periods as deemed necessary to check compliance and to require correction of deviations from the terms and conditions of the permit. ITD may assign at the time of permit issuance, an inspector to inspect the work and the expense of said inspector shall be borne by the permittee. Such inspection by ITD shall in no way relieve the permittee of any duty or responsibility to the general public, nor shall such inspection relieve the permittee from any liability for loss, damage, or injury to persons or property as provided in this policy.

2.9 PERFORMANCE BOND

The Idaho Transportation Department reserves the right to require a performance bond in any amount it deems appropriate, in order to guarantee satisfactory completion and cleanup of the utility work being permitted. The bond amount designated at the time of permit issuance shall be large enough to cover costs to correct potential damage that might be caused by the permittee. The bond shall be executed by a surety company authorized to conduct business in Idaho.

SECTION 3 INDEMNIFICATION

3.1 MAINTENANCE BY UTILITIES

The utility facility shall at all times be maintained, repaired, renewed and operated by and at the expense of the utility. The utility shall maintain at its sole expense their facilities occupying the highway right-of-way in a condition satisfactory to ITD.

3.2 NOTICE OF DAMAGE

Notification of damage to any utility facility by ITD or by another utility shall be made to the affected utility company.

3.3 UTILITY INDEMNIFICATION

ITD's Utility Encroachment Permit shall include the following language as a provision of the permit: "By signing this permit, the permittee, his designated representative or successors, agree to indemnify, save harmless and defend regardless of outcome, the State from the expense of and against all suits or claims, including costs, expenses and attorney fees that may be incurred by reason of any act or omission, neglect, or misconduct of the permittee or its contractors in the design, construction, maintenance or use of the facility covered by the permit."

SECTION 4 DESIGN

4.1 RESPONSIBILITY

When a utility wishes to locate or adjust its utility facility within the highway right-of-way or attached to a highway structure, the utility is responsible for the design. ITD is responsible for review and approval of the utility's proposed design with respect to the location of the utility facilities to be installed and the manner of placement. This includes the measures to be taken to preserve the safe and free flow of traffic, structural integrity of the roadway or highway structure, ease of highway maintenance, appearance of the highway, and the integrity of the utility facility.

When a highway construction project requires the relocation or adjustment of utility facilities, ITD must coordinate the design with the utility in accordance with the <u>GUM</u>.

4.2 RELOCATING COST

When highway improvements require the relocation of utility facilities which have been permitted on highway right-of-way, they shall be moved at the owner's sole expense unless ITD agrees in advance, and at it sole discretion to pay or share in the cost of relocation.

On highway construction where a utility facility originally occupied and/or occupies a portion of the rights-of-way in which the utility has a prior right to the location, the following provisions shall apply:

- ITD will enter into an agreement to reimburse the utility for all costs incurred in designing, removing, adjusting, or relocating the specified utility facility now and if required at any future time by ITD.
- The utility shall release and relinquish to ITD all its rights, title, and interest in its easements located within the right-of-way in exchange for necessary ITD permits to accommodate utility facilities that are relocated, adjusted, or remain in place. These permits may not be canceled except by mutual agreement between the utility and ITD.

4.3 MINIMUM REQUIREMENTS

All utility installations on, over, or under highway right-of-way and attachments to highway structures should be of durable materials designed for long service life expectancy and relatively free from routine servicing and maintenance. Utility installations shall, as a minimum, meet the following requirements:

- Electric Power and Communication Facilities shall conform to the currently applicable National Electrical Safety Code.
- Water Lines shall conform to the currently applicable specifications of the American Water Works Association.
- Pressure Pipelines shall conform to the current applicable sections of the Standard Code for Pressure Piping of the American National Standards Institute, Title 49, Code of Federal Regulations, Parts 192 and 195, and applicable industry codes.
- Liquid Petroleum Pipelines shall conform to the current applicable recommended practice of the American Petroleum Institute for pipeline crossings under railroads and highways.
- Corrugated Metal Pipe or Reinforced Concrete Pipe, Conduit, casing pipe, or gravity carrier
 pipe shall conform to the current issue of the Standard Specifications for Highway
 Construction, published by the Idaho Transportation Department and the American Society of
 Testing and Materials.

Utility facilities shall conform to or surpass the requirements of federal, state, and local regulations if such regulations are more restrictive than the standards referred to above.

On new installations or adjustments of existing utility lines, provisions should be made for known or planned expansion of the utility facilities, particularly those located underground or attached to structures. They should be planned to minimize hazards and interference with highway traffic when additional overhead or underground lines are installed at some future date.

SECTION 5 LOCATION

5.1 GENERAL

Utility facilities shall be located in such a manner so as to:

- Not adversely affect highway operation or traffic safety;
- Avoid interference with highway maintenance and signing;
- Eliminate or at least minimize the need for later adjustment of the facility to accommodate future highway improvements;
- Permit access to the facilities for servicing with a minimum interference to highway traffic.

A decision regarding the accommodation of a utility at a particular location should be made consistent with sound engineering practices. The right-of-way shall be left in as good a condition or better than it was prior to any work.

5.2 EXISTING FACILITIES

Existing facilities within the limits of, and not in conflict with, a highway construction project may remain in place provided the conditions of this policy have been met.

Existing facilities on highway right-of-way that, after comprehensive accident history or safety studies are declared by ITD to be a hazard to highway users shall be relocated or shielded.

Existing underground facilities that fall in the path of a highway construction project and are too weak to support the highway loads and the equipment operation for the highway construction shall be relocated or protected in a manner acceptable to both ITD and the utility.

If existing utilities are allowed to be left in a location that would be under the roadway, the utility will not be allowed to cut the pavement for repair of that facility damaged by an accident or a natural disaster unless first approved by ITD. Approval by ITD will only be granted if the utility can show the repair is an emergency condition which can only be achieved by cutting the pavement. If repairs are done by pavement cuts, the utility company will replace the highway subbase, base and pavement to the requirements and satisfaction of ITD.

5.3 UNDERGROUND FACILITIES

Underground utilities shall be installed to preclude any necessity for disturbing the highway to perform maintenance or expansion operations.

Minimum depth of cover below the roadway surface and within 20 feet of edge of roadway shall be at least 4 feet except for Interstate highways the minimum depth shall be 5 feet. Everywhere else depth of cover shall be at least 3 feet, except for pipe siphons that shall be installed in accordance with ITD Standards.

ITD may approve location for underground facilities with less than minimum depth of cover provided the top of the facility does not project above the highway subgrade, and protection in a manner acceptable to ITD is included.

5.4 ABOVE GROUND FACILITIES

Above ground utility facilities including pedestals or service poles installed as part of a buried installation, shall be located outside the clear zone of the highway as near as possible to the rights-of-way. Where highway right-of-way is not sufficient to allow installation beyond the clear zone, the facilities will be placed in the best possible location that affords adequate

protection to ITD satisfaction for an out-of-control vehicle, such as behind guardrail. Particular care shall be exercised when such facilities are to be located on the outside of a horizontal curve.

Above ground utility facilities shall not be closer to the traveled way than other roadside appurtenances and fixtures unless approved by ITD.

Minimum conductor vertical clearance for overhead utility lines crossing highways shall be approved by ITD, but in no case shall be less than the clearance required by the National Electrical Safety Code.

5.5 LONGITUDINAL

Longitudinal utility facility installations shall be located outside the normal maintenance operating area (beyond ditch or curb line) and as near to the right-of-way line as terrain and other existing utilities will reasonably allow.

Where frontage roads are provided, utility facilities shall be located so they can be serviced only from the frontage road or other access outside highway rights-of-way.

ITD may approve longitudinal installations to locate within the foreslope limits only if the following conditions are shown to exist to ITD satisfaction:

- 1. The utility facilities are not a determent to the highway system.
- 2. The highway traverses a scenic area where an aerial installation would detract from the view or the terrain.

Installations approved to be located within the foreslope limits shall be placed a uniform distance from the pavement edge as near as practicable to the inside edge of the ditch.

Open canals or irrigation ditches shall not parallel highways within the rights-of-way.

5.6 CROSSING

Facilities crossing the highway should be placed as near to a right angle to the highway alignment as practical and preferably under the highway.

Crossings by water canals and irrigation ditches shall be made through culverts or bridges as appropriate to the size of the canal, topographic conditions, and highway safety aspects. Irrigation line and pipe siphon crossings shall be buried from right-of-way line to right-of-way line.

Underground utility crossings in deep cuts, near footings of structures, at cross drains, at grade intersections or ramp terminals and in wet or rocky terrain shall be avoided if possible.

5.7 WITHIN TYPE 5 ACCESS CONTROL (INTERSTATE)

Access for constructing and servicing a utility facility along or across an Interstate shall be limited to access via:

- Frontage roads where provided;
- Intersecting or adjacent public highways, roads and streets, or;
- Special cases with which must be evaluated and approved by ITD and FHWA.

Where a utility facility already exists within the proposed rights-of-way of an Interstate and it can be serviced, maintained, and operated without access from the through-traffic lanes, shoulders or ramps, it may remain provided it does not adversely affect the safety, design, construction, operation, maintenance, or stability of the Interstate.

Manholes and other points of access to underground utilities will only be permitted within the rights-of-way of an Interstate where they can be constructed and serviced without access from the through-traffic lanes, shoulders or ramps.

Access to utility facilities from through-traffic lanes, shoulders or ramps will only be permitted if an extreme emergency exists and repairs are needed for the immediate protection of property and persons or prevention of injury. Refer to Section 2.6. In these emergency cases when direct access to the authorized facilities from ramps or main traveled ways is required, no vehicular traffic movements shall be tolerated that would cross traffic or be contrary to standard traffic movement.

5.7.1 ALONG TYPE 5 ACCESS CONTROL

New utility facilities will not be permitted to be installed longitudinally within the rights-ofway of any Interstate, except in special cases under strictly controlled conditions established by ITD and FHWA for each specific case.

Where such longitudinal installations are requested, the utility must in each case show to ITD satisfaction:

- 1. There are no frontage roads or adjacent public roads/streets are not established at locations where it is feasible to accommodation of the utility facilities is feasible.
- 2. That the accommodations will not adversely affect the design, construction, operations, safety, maintenance, or stability of the interstate and that it will not interfere with or impair the present use or future expansion of the interstate.

Where a longitudinal utility installation is permitted, service connections to adjacent properties shall not be permitted.

Where longitudinal utility installations must traverse interchange areas, they shall be located and treated in the same manner as utility crossings within interchange areas.

5.7.2 CROSSING TYPE 5 ACCESS CONTROL

Installations of new utility facilities and adjustments or relocations of existing utility facilities may be permitted to cross an Interstate.

Utility facilities should cross over or under the Interstate within the permitted easement or rights-of-way of the existing or relocated crossroad, provided installation and servicing thereof can be accomplished without access from the Interstate traffic lanes, shoulders or ramps. Where the utilities prefer to locate outside the permitted easement or rights-of-way of the crossroad, they shall be located and treated in the same manner as utility facilities crossing the Interstate at points removed from grade separation structures.

Overhead utility lines crossing an Interstate at points removed from grade separation structures or those crossing near a grade separation but not within the rights-of-way of the crossroad, shall be adjusted so that supporting structures are located outside the control of access lines. Where right-of-way lines and control of access lines are not one and the same, as where frontage roads are provided, supporting poles may be located in the area between them. In extraordinary cases where such spanning of the roadways is not feasible, consideration may be given to conversion to underground facilities to cross the Interstate.

At interchange areas, support for overhead utilities should be permitted only where all of the following conditions are met:

- 1. The appropriate clear zone from the edge of ramps and Interstate through-traffic lanes are provided.
- 2. Essential sight distance is not impaired.

Except for necessary crossings, water canals and irrigation ditches shall be excluded from the Interstate right-of-way. Crossings may be made by an underground siphon or through culverts or bridges as appropriate to the size of the canal, topographic conditions, highway safety aspects and ITD standards. All access for servicing or patrolling such facilities shall be from outside the control of access lines.

5.8 INSTALLATIONS ON HIGHWAY STRUCTURES

Attachment to highway structures will be allowed only where ITD approves location and the method of attachment to the highway structures. Attachments to highway structures shall not be approved by ITD if doing so will negatively affect the structure for safe traffic operation, efficiency of maintenance, and appearance.

Bridge design shall be checked to ensure that it is adequate to support the additional load and accommodate the utility without compromise to highway features including maintenance.

Utility facility mountings shall be of a type which limit rattle due to vibrations caused by traffic. Attachment shall be made below the deck. Bolting through the bridge floor will not be allowed. The design of the attachment device shall be reviewed and approved by ITD.

Pipes and conduits that are carried through abutments shall be "sleeved" and tight sealed with mastic. Upon leaving the bridge, the utility should be aligned outside the roadway in as short a distance as is operationally practicable. Manholes in the deck shall not be allowed.

The utility shall be required to make satisfactory provisions approved by ITD for the lineal expansion and contraction of its facility due to temperature variations.

Shut-off valves, either manual or automatic, shall be provided at or near ends of structures to provide a means of control in case of an emergency.

Communication and electric power line attachments shall be suitably insulated, grounded, and carried in protective conduit or pipe from the point of exit from the ground to re-entry. Some structures may have existing hangers or conduits available for use with permission from ITD and the company owning the hanger or conduit.

5.9 **AESTHETIC CONTROLS**

Aerial facilities shall be designed to minimize any adverse visual impact. Locations should be planned to preserve attractive landscapes.

New utility installations shall not be permitted within highway right-of-way passing through or adjacent to scenic strips, view areas, overlooks, rest areas, recreation areas, public parks and historic sites except under the following conditions:

- New underground utility installations may be permitted where they do not require extensive removal or alteration of vegetation visible to the highway user or impair the visual quality of the area.
- New aerial installations are to be avoided at such locations unless there is no feasible and prudent alternative and if it can be established to ITD satisfaction that:
 - 1. Other utility locations are not available or are less desirable from the standpoint of visual quality.
 - 2. Underground installations are not technically feasible or are more detrimental to the visual quality of the area.

3. The proposed installation will be made at a location and in a manner that will not significantly detract from the visual qualities of the area being traversed and will employ suitable designs and materials that give the greatest weight to aesthetic values.

These provisions shall also apply to utility installations that are needed for highway purposes, such as for highway lighting or to serve a weigh station, rest area, or recreational area.

SECTION 6 CONSTRUCTION

6.1 GENERAL

All work in connection with utility facilities shall be done in a continuous, efficient and workmanlike manner to the satisfaction of ITD. The details of construction of the facility shall at a minimum conform to the provisions of this policy, the "<u>Standard Specifications for Highway Construction</u>" current issue by ITD, the "<u>MUTCD</u>," and all other established federal, state and industry standards currently in effect. ITD may require more stringent provisions covered by the Utility permit to accommodate any project or site specific conditions or need.

The size of a disturbed area shall be kept to a minimum. Any highway features or facilities such as paint stripes, signs, culverts, traffic signal, luminaries, Right-of-way makers, delineators, etc., disturbed or damaged as a result of the utility work shall be properly restored at the permittee's expense, to the satisfaction of ITD.

Upon completion of the work all equipment, barricades, unearthed boulders and other debris shall be removed from within the limits of the highway, including mud tracks on paved roads. The disturbed surface shall be carefully graded to the lines and grades established. Seeding shall be required to restore vegetation damaged or destroyed.

6.2 PROTECTION OF PUBLIC

The Utility Company permit shall include a traffic control plan that will not allow or at the least limit the contractor's equipment/vehicle parking and materials storage within the clear zone. Work zone access during construction shall be described as well as protection of the public from any open excavation or other hazards. The traffic control plan and all flagging, signing, and traffic control devices used shall be in conformance with the "MUTCD" as adopted by the State and ITD standards and requirements.

Construction operations shall be conducted so that a minimum amount of interference or interruption of highway traffic results. Inconvenience to residents and businesses shall be minimized. Safe and proper connections with all intersecting public or private roads or driveways shall be maintained in passable condition at all times, except when authorization is obtained from the State, County, City or Highway District having jurisdiction over the roadway. Delay to traffic including access to and from residents and businesses, shall not exceed 15 minutes unless approved by ITD.

The contractor shall provide, erect, and maintain all the required traffic control devices and provide certified flaggers necessary for the protection of the workers and the safety of the public in accordance with an approved traffic control plan. Highways, roads or driveways closed to traffic shall be protected by effective barricades. Suitable warning signs, illuminated at night, or other approved means shall be provided to mark the places where surfacing ends or is not compacted, or where there are other obstructions. All lights for this purpose shall be illuminated from sunset to sunrise. Signs not required during non-work periods shall be removed from view.

Except in cases of extreme emergency, full road closures of state highways shall not be permitted unless authorized in advance by ITD. Emergency services (e.g., police, fire and ambulance) shall be advised of the closure and proposed detour routes as soon as possible. No work, except emergency work, shall be done at night without prior approval of ITD.

Flaggers shall wear approved retro reflective vests and hard hats, and shall provide stop/slow paddles of the size and color required by the "MUTCD." All flagging and traffic control for the work zone shall conform to the requirements of the "MUTCD" and ITD.

6.3 TRENCHING

Utilities on highways shall not be placed under the roadway by cutting through the pavement unless approved by ITD and showing that installation by jacking, driving, or boring is impractical. ITD will consider pavement cutting only where gravel or boulders prevented jacking, driving or boring on at least three attempts made at different locations and overhead installation is not possible.

Pavement cuts for installation of utilities under Type V access control shall not be allowed except for special cases approved by ITD and FHWA.

When special permission is granted to cut the highway pavement in order to do trenching for installation of the utility facility, the following shall apply:

- Trenches shall be cut to have vertical faces, where soil and depth conditions permit, with a maximum width of outside diameter of pipe plus 2 feet.
- The trench edges in paved areas shall be sawed or cut to neat lines parallel to and 4 feet wider on each side than the trench excavation limits, to a depth sufficient to permit removal of pavement without damage to remaining pavement. Removed pavement and other unsuitable excess excavated material shall be disposed of outside the highway right-of-way.
- No more than one-half of the traveled way shall be excavated at one time. The excavated one-half shall be completely backfilled and compacted before excavating the other one-half.
- Bedding shall be provided to the depths per ITD standards and consist of granular material that is free of lumps, clods, stones, and frozen materials and should be graded to a firm but yielding surface without abrupt change in bearing value. Unstable soils and rock ledges should be sub-excavated from the bedding zone and replaced by suitable material. The bottom of the trench should be prepared to provide the pipe with uniform bedding throughout the length of the installation.
- Immediately after placement of the bedding and pipelines, conduits, or carrier pipes, the trench shall be backfilled. ITD approved backfill material shall be placed and compacted in accordance with ITD standards to an elevation that will allow placing of the appropriate base and roadway surface.
- Everything removed in the performance of trenching shall be restored in kind by the contractor in accordance with ITD standards
- Trenches excavated through gravel surfaced areas such as gravel roads and gravel shoulders, unpaved driveways, etc., shall have the gravel surface restored and maintained, except that the gravel shall be a minimum of 1 inch more than the thickness of the existing gravel.

All material specification, placement and compaction requirements for all approved trenching location within the highway right-of-way shall conform to the current Standard Specifications for Highway Construction, published by the Idaho Transportation Department.

6.4 JACKING, DRIVING, OR BORING

Installation by jacking, driving, or boring shall be in accordance with the following provisions:

- Trenching in connection with any of these methods shall be conducted no nearer than 5 feet from the subgrade edge if bulkheaded and not less than the vertical difference in elevation between the subgrade edge and the facility if not bulkheaded.
- Jacking, driving, or boring shall be by approved means that will hold disturbances of

surrounding material to a minimum. Sluicing or jetting will not be allowed. Sand or cement grout packed in place shall be required where the hole is greater than 5 percent oversize in diameter for pipelines larger than 12 inch diameter.

6.5 DIRECT BURIAL

Underground electrical power and communication cable placed by the plowing method shall be subject to the following:

- Longitudinal installations shall be limited to areas outside the ditch line.
- ITD may permit, in hardship cases such as solid rock, steep cliffs, swampy areas, etc. (if ample justification is shown), the placement of the cable within the roadway foreslope. In such cases, the location shall be as specified in <u>Section 5.5</u>.
- Rocks brought to the surface by plowing shall be removed from the highway right-of-way. The ground surface shall be graded to conform to that of the surrounding terrain and restored to ITD satisfaction.
- Right-of-way markers and highway delineators shall be protected from damage.

6.6 ENCASEMENT

Casings or utility tunnels should be considered for the following conditions:

- As an expediency in the insertion, removal, replacement, or maintenance of carrier pipe crossing under highways in order to avoid open trenched construction.
- As protection for carrier pipe from external loads or shock, either during or after construction of the highway.
- As a means of conveying leaking fluids or gases away from the area directly beneath the traveled way to a point of venting at or near the right-of-way line or to a point of drainage in the highway ditch or a natural drainage way.
- Jacked or bored installations of coated carrier pipes should be encased except where assurance can be provided against damage to the protective coating.
- Pipelines with less than minimum cover, near footings of bridges or other highway structures, or near other areas where there may be a hazard.

Casing should not be used where the utility company advises against it because the use of a casing would be a detriment to the utilities facility or the roadway. Uncased crossings of welded steel pipelines carrying transmittants that are flammable, corrosive, expansive, energized, or unstable, particularly if carried at high pressure, will be permitted only when the utility company shows they have provided additional protective measures. Examples are as follows:

- Higher factor of safety in design.
- Thicker wall pipe.
- Radiograph testing of welds.
- Hydrostatic testing.
- Adequate coating and wrapping.
- Cathodic protection.

Casings and utility tunnels shall be designed to support the load of the highway and all superimposed loads thereon. Casings and utility tunnels shall be composed of materials of satisfactory durability for the conditions of loading and soil characteristics.

Casings shall extend a minimum of 5 feet beyond the outer edge of the subgrade. On curbed sections, the casing shall extend outside the back of curb. For Type V Access Control highways, casings and utility tunnel shall extend to the access control lines or to the outside of frontage roads.

Casing pipe shall be sealed at the ends with a flexible material to prevent flowing water and debris from entering the annular space between the casing and the carrier.

Pipelines located in casings or utility tunnels shall be designed to withstand expected internal pressure and to resist internal and external corrosion.

6.7 APPURTENANCES

Vents, drains, markers, manholes, shut-offs and utility poles are appurtenances to utility facilities. Controls for such appurtenances are as follows:

- Vents are appurtenances by which fluids or gases between carrier and casing may be inspected, sampled, exhausted, or evacuated. Vents shall be located at the high end of casings under 150 feet in length and at both ends of casings over 150 feet in length. Vent standpipes shall be located and constructed to not interfere with the maintenance of the highway, preferably at the right-of-way line. Vents shall not be placed in a location that will be hazardous to the public.
- Drains are appurtenances by which liquids or heavy gases may be evacuated or exhausted.
 Drains shall be provided for casings, tunnels, or galleries enclosing carriers of liquid,
 liquefied gas, or heavy gas. Drains may be allowed to outfall into roadside ditches or natural
 water courses at locations approved by ITD. Natural drainages and roadside ditches will not
 be used for draining materials that may be hazardous to the public.
- Markers/warning signs shall describe the type of underground utility; provide the company
 name and a phone number to contact for emergencies. The utility company shall be required
 to place markers/warning signs at the right-of-way line where underground utilities cross
 highways. Underground utilities installed longitudinal shall be identified by placing
 markers/warning signs at appropriate intervals and shall be offset as near to the right-of-way
 line as practical.
- Marking tape for underground facilities shall be installed in accordance with industry standards.
- Manholes are access openings in an underground system which may be entered for the purpose of making installations, repairs or maintenance. Manholes shall not be located in the pavement or shoulders of major highways. Existing manholes may be allowed to remain in place upon reconstruction provided they do not constitute a hazard. Location and design of manholes shall minimize interference to other utilities and future highway expansion. Adjustment of manholes to fit new or reconstructed highway paving, grading or slope flattening shall be done to ITD standards by ITD or its contractor unless the facility owner does the work at the utilities own expense.
- Shut-off valves shall be installed in lines at or near the ends of structures and near unusual hazards. The type of valve (manual or automatic) shall be governed by the conditions within the area.
- Overhead utility lines on the highway right-of-way should be limited to a single pole type of construction in accordance with industry standards. Joint-use single pole construction is encouraged at locations where more than one utility or type of facility is involved. Guy wires to ground anchors and stub poles should not be placed between a pole and the traveled way

where they encroach upon the clear zone area. Guy wires within the right of way may require delineation.

No decoration, display, flag, banner, colored light, structure or other advertising or decoration item shall be attached to a utility facility without written permission of the appropriate utility company and ITD.

SECTION 7 REFERENCES

- Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), latest edition, as adopted by the Idaho Transportation Department, issued by Federal Highway Administration
- Standard Specifications for Highway Construction current edition issued by Idaho Transportation Department
- Guide for Utility Management current edition issued by Idaho Transportation Department
- A Policy on Geometric Design of Highways and Streets current edition issued by American Association of State Highway and Transportation Officials
- Code of Federal Regulations Title 23 Part 645 Utilities coupled with any other reference cited therein; Title 49 part 192 & 195 Transportation of Natural and Other Gas by Pipeline published by the Office of Federal Register National Archives and Records Administration and any amendments or supplements which are in effect prior to execution of the agreement.
- *National Electric Safety Code* current edition for sale by the Institute of Electrical and Electronic Engineers.
- Recommended Practice for Liquid Pipeline Crossing Under Railroads and Highways current edition by American Petroleum Institute.
- American Water Works Association Standards and Specifications current edition.